

1550 nm

Faraday Rotators and Isolators 1525 nm to 1575 nm

Our 1525 nm to 1575 nm Faraday devices rotate the plane of polarized light 45° in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction while maintaining the light's linear polarization. An optical isolator shields lasers from destabilizing and potentially destructive back-reflected light from interfaces on downstream optics or back-scattered ASE from optical amplifiers.

Based on high Verdet constant, low absorption coefficient rotating material, and developed to work with up to 20 W of average input power in the 1525 nm to 1575 nm wavelength range, our Faraday devices provide the ultimate protection for polarized lasers.

Features

- Completely passive; no tuning required
- All isolators contain escape ports; all rejected beams are deflected at 90°.

Options

- Optional waveplate for manipulation of polarization
- Customization available

Applications

- Mapping
- LIDAR
- Medical & Biosciences
- Chirped Pulsed Amplification (CPA)

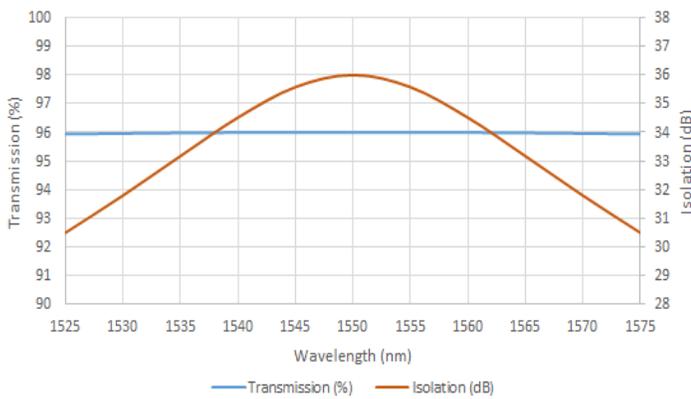


SPECIFICATIONS

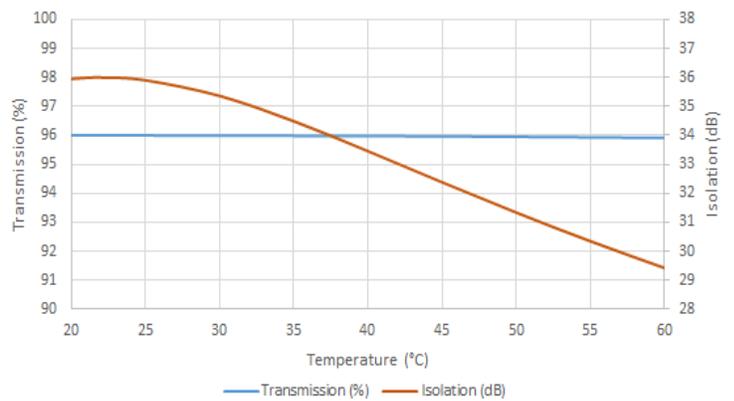
	Rotator	Isolator ¹
Clear Aperture (mm)	4	4
Transmission at 22 °C (%)	>92	>92
Isolation at 22 °C (dB)	N/A	>30
Pulsed Damage Threshold (J/cm ²)	1 at 10 ns	1 at 10 ns
Power Handling (W)	20	20

¹ Escape ports should be used if rejected light is >1 W or 0.15 J/cm² at 10 ns. All stray beams should be properly terminated.
NOTE: Return loss-free working distance ≥ 25 mm for a collimated beam

Typical 1550 nm Isolator Performance



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. All products are RoHS compliant.

Coherent offers a limited warranty for all 1550 nm Rotators and Isolators. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative. Copyright ©10/21 Coherent, Inc.